

2030 Solid Waste Master Plan Discussion of Goal and Capacity Data

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Solid Waste Advisory Committee

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Status and Next Steps

- Beginning to write draft plan now
- Goal remains to have public hearing draft by fall 2019 and final plan by end of 2020
- Upcoming Meetings
 - June 13 – EBC SWMP Forum
 - June 18 – C&D Subcommittee
 - June 27 – SWAC
 - June TBD – Organics Subcommittee

Master Plan Goals - Current

- Current goals
 - 30% reduction in disposal by 2020 (at 13% through 2017)
 - 80% reduction in disposal by 2050
- More progress needed – will require new & expanded strategies
- Population increased by 5 percent from 2008 – 2017
- Per capita disposal decreased by 17 % from 2008 -2017
 - 2002 to 1,667 lbs. per capita
- In addition, GDP by state increased 16% during this same period

Master Plan Goals – Proposed for Discussion

- Potential 2050 goal
 - Should we have a 90% reduction in disposal by 2050?
 - 5.9 million ton reduction from 2008 (from 6.5 million tons)
 - 5.1 million ton reduction from 2017 (from 5.7 million tons)
- Corresponding 2030 goal – assuming straight line progress
 - 1.7 million ton (33%) reduction from 2017
 - 2.5 million ton (38%) reduction from 2008

SWMP Goal Discussion

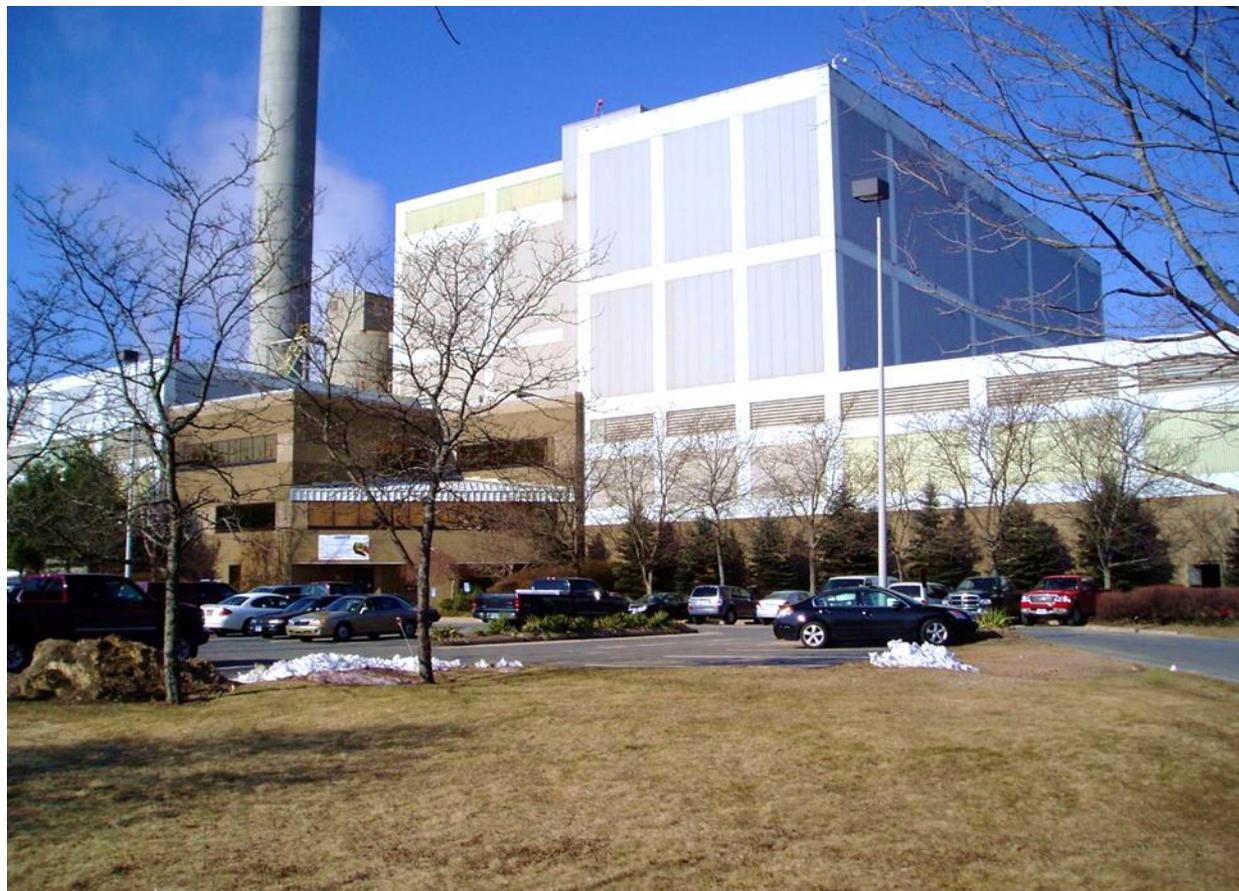
- Review assumptions for data analysis
- One possible scenario to reduce disposal by 1.7 million tons by 2030
- In line with 90% reduction by 2050
- Analysis only includes 5.2 million tons of MSW & C&D
- Excludes about 500K tons other non-MSW
- Review and explain analysis

7
WTE facilities

3.25 million
tons of solid waste
received

93%
of permitted
capacity utilized

44.0%
of the total solid
waste managed in
Massachusetts



Waste-to-Energy

10
MSW landfills

1.26 million
tons of solid waste
received

83%
of permitted
capacity utilized

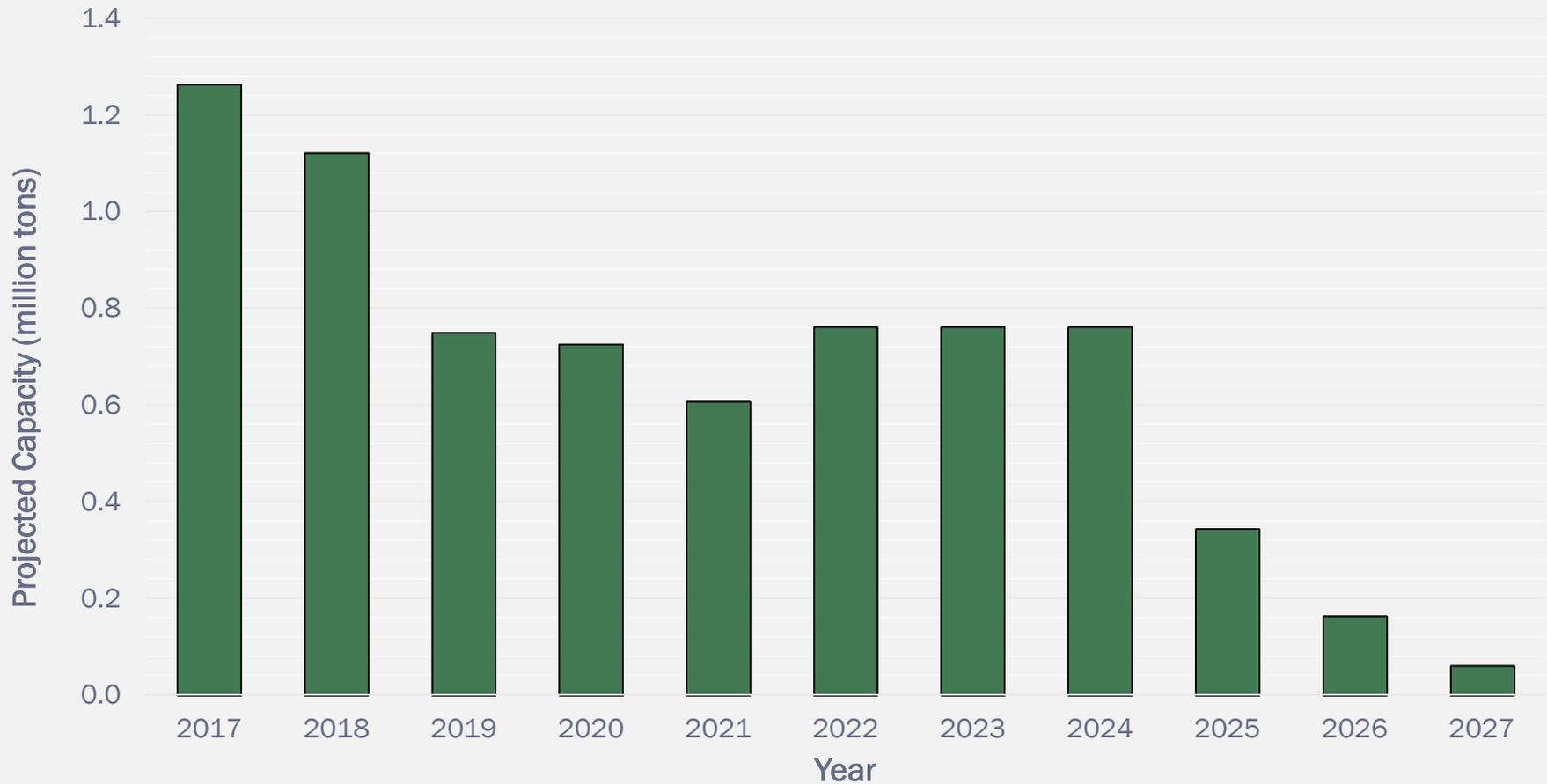
17.1%
of the total solid
waste managed in
Massachusetts



Landfills

Massachusetts Projected Landfill Capacity

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Note: The Town of Bourne Landfill is projected to be capable of an increase in MSW capacity after its ash disposal contract with Covanta SEMASS expires in Dec. 2021.

54
large or C&D
transfer & handling
facilities

3.46 million
tons of solid waste
received

58%
of permitted
capacity utilized

999,000
tons of solid waste
exported out-of-state

13.5%
of the total solid
waste managed in
Massachusetts

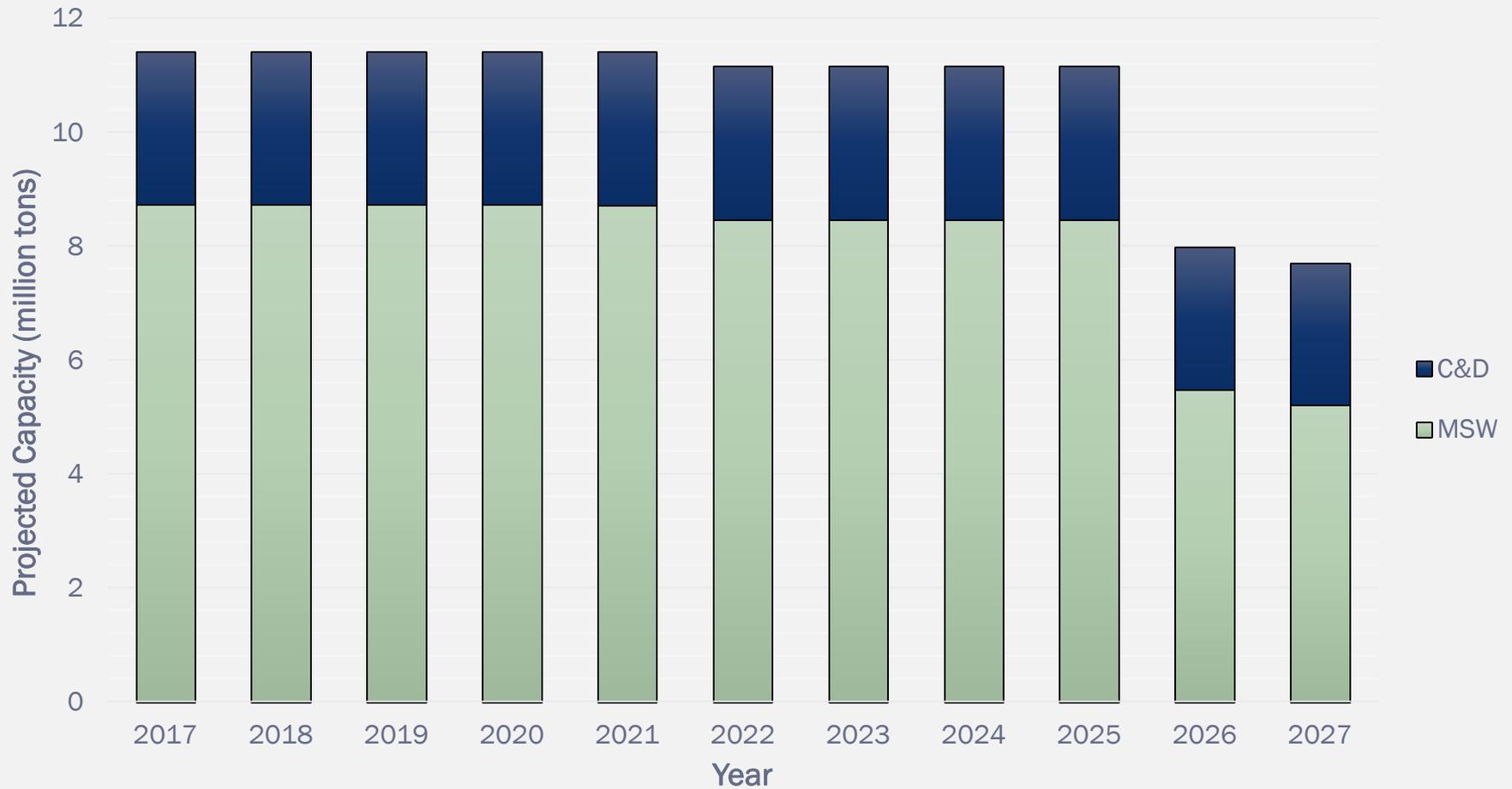


Transfer & Handling

Landfill Capacity Projections

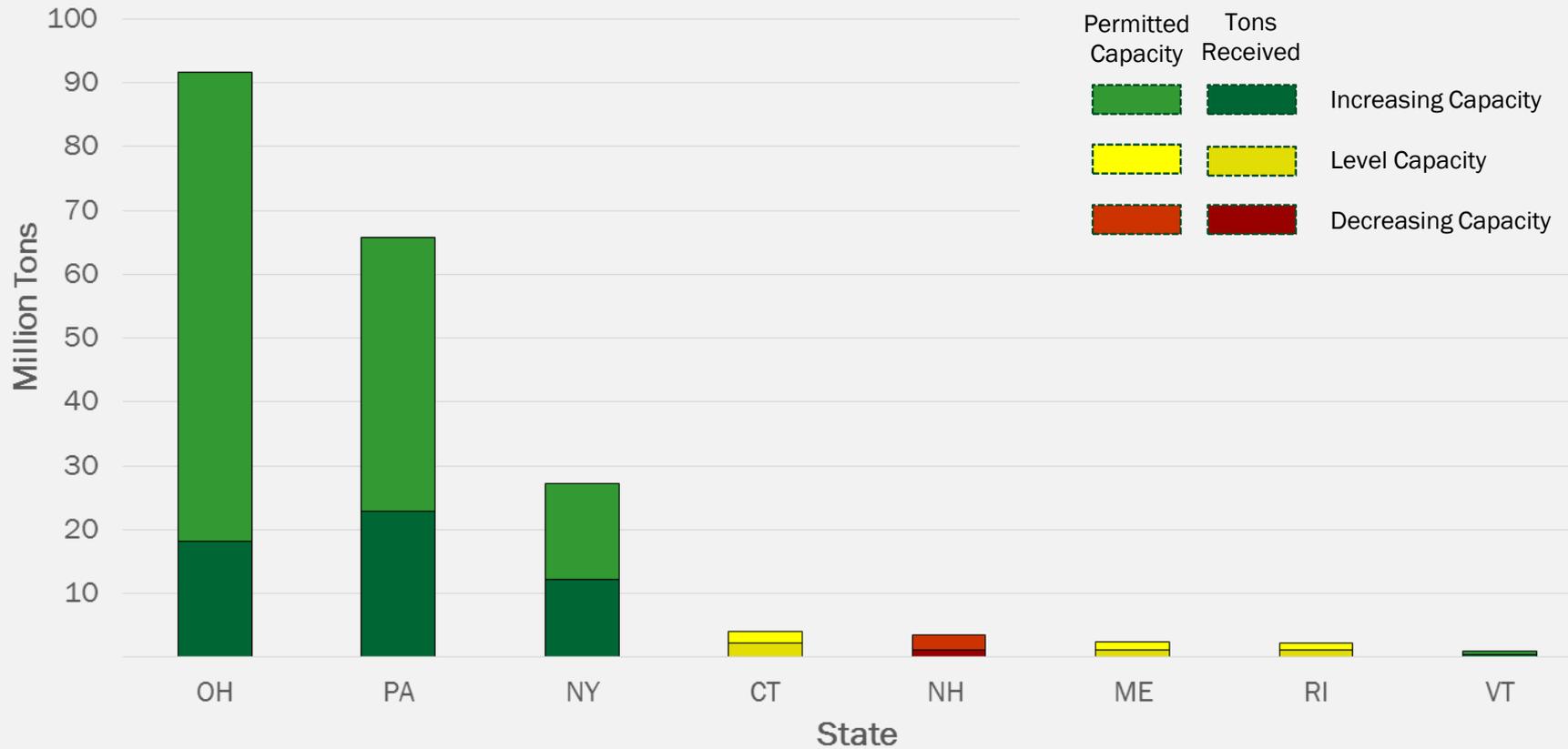
(at Importing Landfills)

10

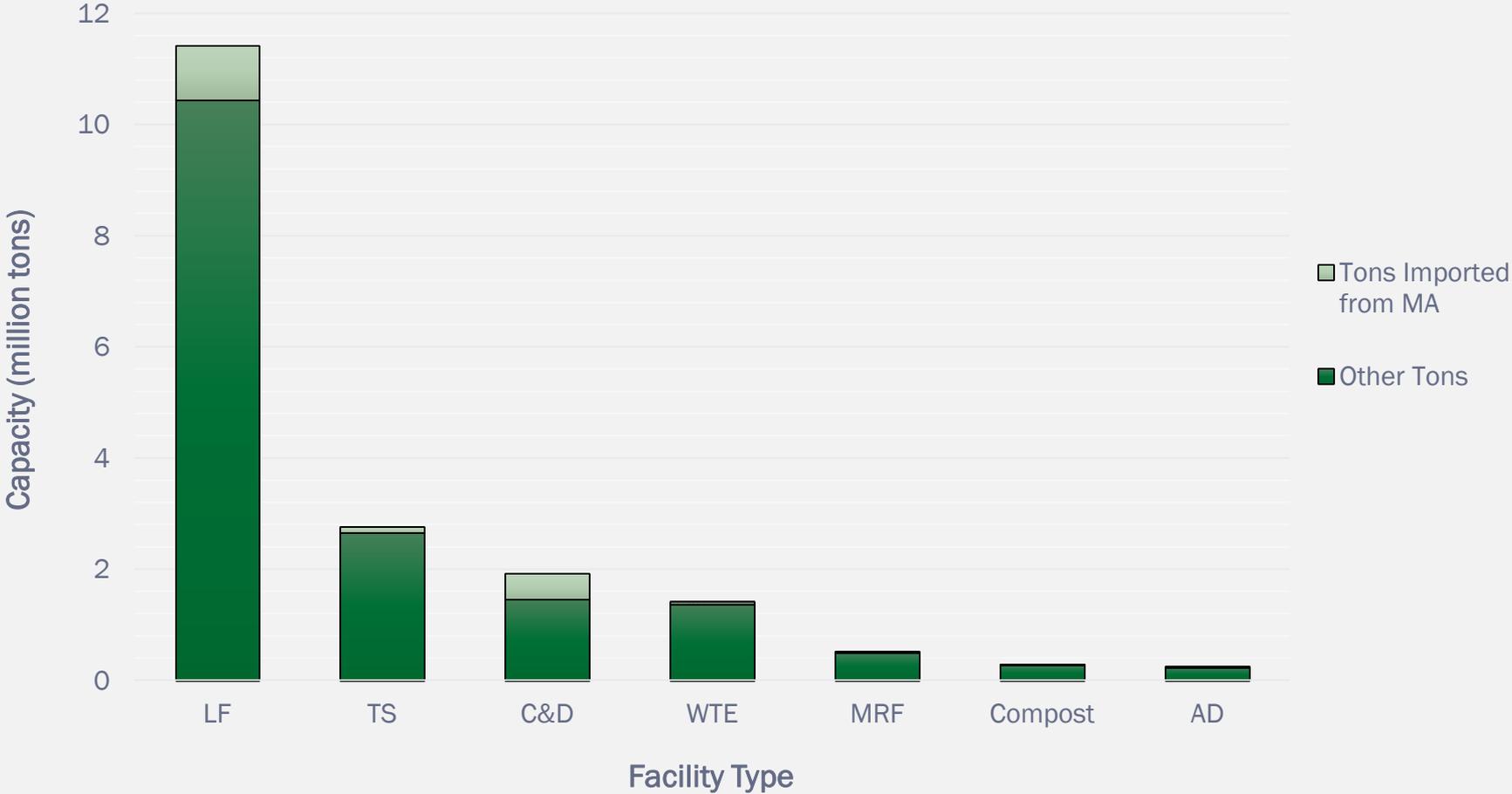


Out-of-State Disposal Trends

11



Out-of-State Capacity by Facility Type

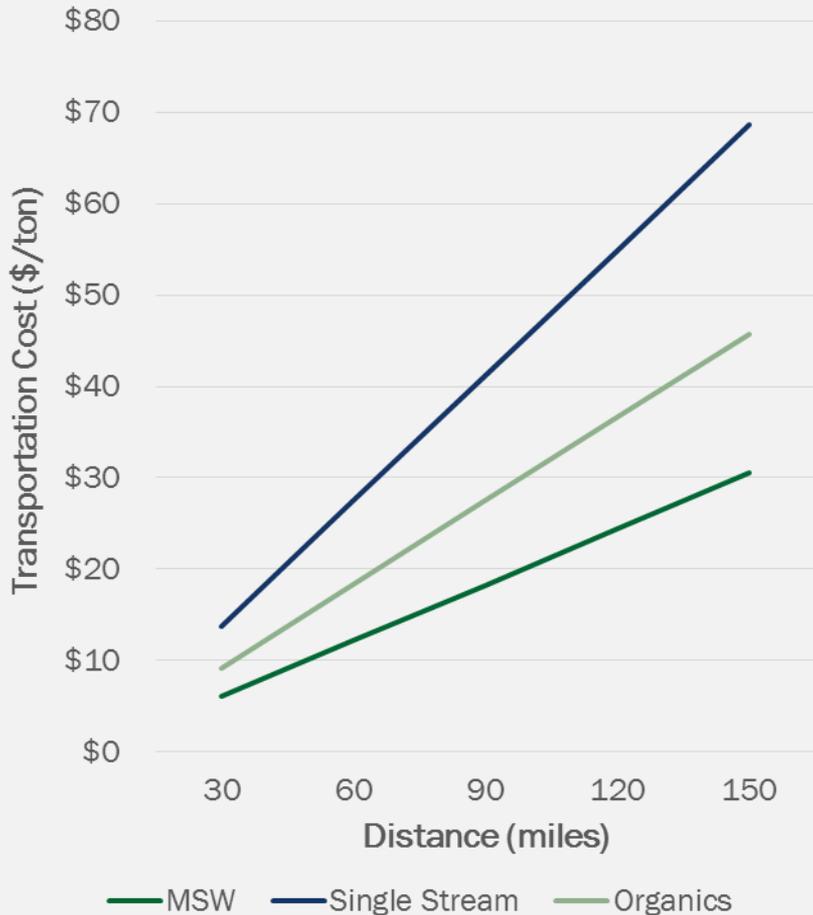


Note: Includes facilities within 30 miles from MA border or WTE/LF facilities accepting ≥ 5000 tons of MA waste

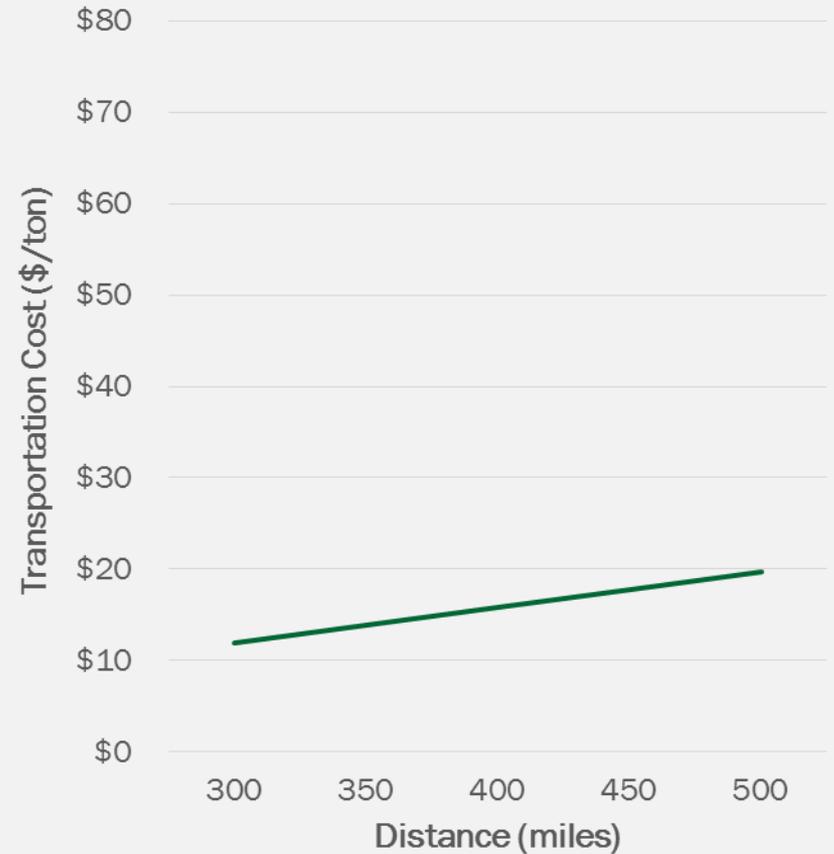
Waste Transportation Costs

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Truck Transportation Cost by Distance



Rail Transportation Cost by Distance



Operational Issues

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- Minimal resiliency in current waste management infrastructure
- Longer facility wait times – increased operational difficulties and costs
- Any restrictions present serious problems in moving waste
 - Facility down time – scheduled or unscheduled
 - Weather difficulties
 - High volume periods

8
MRFs

690,000
tons of material
received

90%
of estimated
capacity utilized

629,000
tons of material
recycled

8.5%
of the total solid
waste managed in
Massachusetts



MRFs

17
C&D processing
facilities

1.34 million
tons of material
received

50%
of permitted
capacity utilized

251,000
tons of solid waste
recycled

8.9%
of the total solid
waste managed in
Massachusetts



C&D Processing

Recycling Business Grants



Material	Number of Grants	Grant Award Amounts	Tons Per Year
Mattresses	2	\$302,000.00	815.38
Plastics	4	\$345,000.00	3,809.00
Glass	2	\$400,000.00	20,490.00
Comingled recyclables	2	\$600,000.00	30,200.00
C&D Wood	7	\$850,000.00	47,350.00
Food Material	6	\$996,000.00	94,000.00
Totals	23	\$3,493,000.00	196,664.38

197
compost facilities

400,000
tons of material
received

88%
of estimated
capacity utilized

5.4%
of the total solid
waste managed in
Massachusetts



Compost

8
anaerobic digestion
facilities

111,000
tons of material
received

36%
of permitted
capacity utilized
(new capacity
coming online)

353,000
tons of additional
capacity available in
near future

1.5%
of the total solid
waste managed in
Massachusetts



Anaerobic Digestion

7
animal feed
facilities

13,000
tons of material
received

9%
of permitted
capacity utilized

0.2%
of the total solid
waste managed in
Massachusetts



Animal Feed

220
reuse operations

43,000
tons of material
received

13 out of 25
surveyed
respondents expect
to increase in scale

0.6%
of the total solid
waste managed in
Massachusetts



Material Reuse Organizations

Conclusions

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- **Disposal is increasingly reliant on export markets**
 - Massachusetts Landfills and WTEs are operating at capacity, with closures forthcoming
 - Massachusetts transfer stations have excess capacity
 - Significant disposal capacity exists in western export markets (NY, PA, OH)
- **C&D processing can absorb another 1.3 millions tons**
 - C&D processing to recover recyclables projected by DEP to increase
 - But high residue rates mean most of this will still require disposal
- **There is meaningful capacity for source separated recoverable materials**
 - Organics to AD, compost facilities and food rescue
- **Reuse sector has minimal impact by tonnage**
 - Although maximizes recovered material value

Projections

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- Exported disposal tonnage will continue to increase
- Source separation will be necessary to capitalize on Massachusetts solid waste capacity
- The above bullets point to higher costs for materials management in Massachusetts

Next Steps

- Comments or questions
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